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UNITED STATES DISTRICT COURT
DISTRICT OF OREGON
PORTLAND DIVISION

CENTER FOR BIOLOGICAL DIVERSITY,
ET AL,

Case No: 18-CV-1035 (MM)

Plaintiffs,

FIRST AMENDED COMPLAINT FOR
DECLARATORY AND INJUNCTIVE
RELIEF

v.

DAUGHERTY, ET AL,

Defendants,

and

OREGON FOREST INDUSTRIES
COUNCIL, ET AL,

Defendant-Intervenors.

INTRODUCTION

1. In this citizen suit under the Endangered Species Act, 16 U.S.C. §§ 1531-1544 [hereinafter the “ESA” or “Act”], *id.* § 1540(g) (citizen-suit provision), several conservation organizations seek relief for the unlawful take of a federally threatened population of coho

salmon from logging, log-hauling, and the construction, improvement, use, and maintenance of logging roads authorized by Defendants in the Tillamook and Clatsop State Forests of northwestern Oregon [hereinafter “State Forests”]. Plaintiffs seek declaratory and injunctive relief against Defendants Peter Daugherty, in his capacity as the State Forester of the Oregon Department of Forestry [hereinafter “ODF”], and the district foresters for the Tillamook, Forest Grove, and Astoria ODF districts [hereinafter the “District Foresters”], in their official capacities [collectively hereinafter the “Foresters” or “Defendants”], to remedy Defendants’ ongoing authorizations of timber sales on the State Forests that are reasonably certain to proximately cause the unpermitted take of Oregon Coast coho salmon, a protected species under the ESA, in violation of Sections 4(d) and 9 of the Act, *see id.* §§ 1533(d), 1538(a)(1)(B), (G).

2. Implementing their own multi-year management plans, Defendants sell approximately 180 million board feet of timber from the State Forests every year. The overwhelming majority of this volume is Douglas-fir that is cleared from the very remote, steep, and erosion-prone slopes of the Tillamook State Forest and Clatsop State Forests. These sales provide a steady stream of revenue that funds substantial portions of the Foresters’ budgets. However, as will be made evident by the exhaustively studied consequences of similar activities, these sales also unlock a series of events that ultimately cause the take of protected coho salmon, which at this time has not been authorized by the federal government through the lone legal mechanism for doing so under Section 10 of the Act, 16 U.S.C. § 1539.

3. Thus, by and through their planning, authorization, and sale of the 68 timber sales identified in Table 1 below, which align with Defendants’ decades-long and ongoing approach to management of the Tillamook, Forest Grove, and Astoria ODF Districts, Defendants directly authorize timber companies to clear-cut thousands of acres of State forestlands and to haul the

logs along roads that act as conduits for surface water runoff to enter streams. And, as conclusively documented in the relevant scientific literature and as Plaintiffs will prove in this case, these activities: increase flooding and the frequency and magnitude of landslides and debris flows; deliver fine sediment via hydrologically connected road segments to streams that are known to be utilized by coho salmon for spawning, rearing, and sheltering; and deplete large trees and woody debris that would otherwise form a critical component of their freshwater habitat.

4. The 68 timber sales listed in Table 1, below, have units and/or haulage routes that are adjacent to and/or upstream from stream reaches that are known to be occupied by coho salmon. In the last column (entitled “Impact”), sales that authorize the use of hydrologically connected roads for hauling logs and heavy equipment are denoted with the acronym “HCR.” Timber sales that present an increased risk of landslides and/or debris flows are denoted with the acronym “LS.” Use of “ALT” in the timber sale name refers to an “alternative” timber sale, i.e., one to be sold when primary sales threaten to fall short of the Foresters’ timber revenue objectives. “AOP” refers to the pertinent Annual Operating Plan. ODF Districts are abbreviated as follows: AST (Astoria); FG (Forest Grove); and TILL (Tillamook).

Timber Sale	District	AOP	Acres Total	Acres Clear- Cut	Acres Partial -Cut	Road Const. (Miles)	Road Imprvd. (Miles)	Impact
Greasy Hawk	AST	2015	152	152		0.2	1.8	HCR
Green Olive	AST	2015	134	134		0.2	10.4	HCR
Homesteader	AST	2015	437	203	234	1.1	7.9	HCR
Lost Pony	AST	2015	159	159		0.2	5.3	LS, HCR
Nowhere Land	AST	2015	137	137		0.4	0.7	HCR
Packey	AST	2015	213	213		0.6	12.4	HCR
Quarter Mile	AST	2015	68	68		1.9	0.8	LS

Timber Sale	District	AOP	Total Acres	Acres Clear-Cut	Acres Partial -Cut	Road Const. (Miles)	Road Imprvd. (Miles)	Impact
Mor Nor Wolf	FG	2015	189	189		1.42	4.93	HCR
Round House	FG	2015	297	157	140	2.45	4.68	HCR
Ax Ridge	TILL	2015	302	237	65	5.3	1.6	LS
Emerald Isle	AST	2016	148	148				HCR
Nehalem Breaks	FG	2016	145	145		1.04	2.71	HCR
Fireworks	TILL	2016	330	330		0	15	LS
Lobo Canyon	TILL	2016	194	194		0.99	4.19	LS, HCR
Old Bungee	TILL	2016	610	335	275	4	0	LS, HCR
The Simms	TILL	2016	949	949		3.36	3.4	LS, HCR
Three Little Ridges	TILL	2016	348	348		3	8	HCR
Moving Music	FG	2017	119	119		1.42	1	HCR
My Mulligan	FG	2017	108	108		0	0	HCR
Voltaires Flair	FG	2017	363		363	0	0.5	HCR
Woods Way	FG	2017	110	110		0.87	2.3	HCR
Brimstone	TILL	2017	27	27		0.98	3.16	LS
High Standards	TILL	2017	110	110		1.96	3.53	LS, HCR
Knot Berry	TILL	2017	193	193		1.67	2.6	LS
Rocky Rd	TILL	2017	613	298	315	6.25	2.85	LS, HCR
Broken Arrow	TILL	2018	405	405		2.11	7.4	LS, HCR
Clam Bake	TILL	2018	402	402		2.22	18.1	LS
Coast Bill	TILL	2018	222	222		1.95	8.27	LS
Double Bypass	TILL	2018	77	77			9.1	LS, HCR
Franken Fir	TILL	2018	313	313		1.54	7.1	LS, HCR
General Lee	TILL	2018	157	157		0.94	10.9	LS, HCR
Hopscotch	TILL	2018	111	0		0.9	6.1	LS
Kilchis Sddl	TILL	2018	225	225		1.57	13.2	LS, HCR
Lost Hill	TILL	2018	236	236		1.9	6.5	LS
Southern Steamer	TILL	2018	209	209		3.25	13.8	LS, HCR
Thor's Summit	TILL	2018	107	107		2.4	12	LS, HCR
Clean Slate	AST	2019	66	66			7.4	HCR

Timber Sale	District	AOP	Total Acres	Acres Clear-Cut	Acres Partial -Cut	Road Const. (Miles)	Road Imprvd. (Miles)	Impact
Upper Horsehawk	AST	2019	92	92		0.6	0.4	LS
Wild Bill	AST	2019	56	56		0.3	17.3	HCR
Woody Woodpecker	AST	2019	297	100	197			LS
BD7	FG	2019	150	150		0.74	11.37	LS, HCR
Big Louie	FG	2019	90	90		0.37	7.2	LS
Duchess and the Duke	FG	2019	83	83		0.52	9.18	LS
Hanns Down	FG	2019	104	104			9.97	HCR
Lou's Leftovers	FG	2019	123	123		0.3	8.89	HCR
More Cow Bell	FG	2019	96	96		1.14	11.14	LS
Power Trip	FG	2019	70	70		0.14	3.87	LS
Sloopy	FG	2019	69	69			16.85	LS
Willy Nilly	FG	2019	189	189		0.59	21.19	LS
Clam Bake (ALT)	TILL	2019	402	402		2.23	18.12	LS
Coast Bill (ALT)	TILL	2019	222	222		1.95	9.35	LS
East Foley	TILL	2019	226	226			10.4	LS
Gold Rush	TILL	2019	180	180		2.17	6.3	LS, HCR
Jethro Toll	TILL	2019	333	333		1.75	6.97	LS
Kilchis Saddle (ALT)	TILL	2019	225	225		1.57	13.24	LS, HCR
South Bushong	TILL	2019	222	222		0.81	9.88	LS
Buck Shot	AST	2020	177	177		0	10.4	HCR
Clean Slate	AST	2020	226	226		0	17.2	HCR
Dragons Roost	AST	2020	202	202		0.1	23.9	HCR
Forgotten Shorts	AST	2020	67	67		0	1.9	LS
Old Bungee	TILL	2020	225	225		0.91	9.62	LS, HCR
Smith & Archers	TILL	2020	205	205		1.97	8.81	LS
Kilchis Saddle	TILL	2020	220	220		2.16	13.24	LS

Timber Sale	District	AOP	Total Acres	Acres Clear-Cut	Acres Partial -Cut	Road Const. (Miles)	Road Imprvd. (Miles)	Impact
Wooley Grade	TILL	2020	102	102		0	7.77	LS
Hembre Falls (ALT)	TILL	2020	181	181		0.51	9.3	LS
Coast Bill (ALT)	TILL	2020	331	331		2.25	10.46	LS
Jordan Ridge (ALT)	TILL	2020	176	176		0.63	1.15	LS
ZZ Tops (ALT)	TILL	2020	126	126		1.38	6.2	LS

5. As evident from the well-documented effects of similar activities in the past, it is reasonably certain—indeed, all but guaranteed—that Defendants’ authorization of the timber sales in Table 1 and all similar timber sales on the State Forests trigger a chain of entirely foreseeable consequences that causes death and injury of coho salmon and significantly impairs their ability to successfully spawn, forage for food, and take refuge from predators. By disrupting these essential behaviors, Defendants cause “take” of Oregon Coast coho salmon within the meaning of the Act in ways that have been exhaustively studied, are known to ODF as well as other State agencies, and were specifically identified by the National Marine Fisheries Service [hereinafter “NMFS”], the expert federal agency, as forms of prohibited take of this species. 50 C.F.R. § 223.203 [hereinafter “Special Rule”]; 73 Fed. Reg. 7816, 7830 (Feb. 11, 2008) (“[a]ctivities that . . . could potentially ‘harm’ salmon” include logging, “road construction in riparian areas” and areas that are “susceptible to mass wasting and surface erosion,” and the “removal of large woody debris and ‘sinker logs’ or riparian shade canopy”).

6. While ODF has taken some initial steps in the past toward securing an Incidental Take Permit [hereinafter “ITP”] from NMFS pursuant to ESA Section 10(a)(1)(B), *see* 16 U.S.C. § 1539(a)(1)(B), ODF has never completed a final “Habitat Conservation Plan” [hereinafter

“HCP”] that would allow the Foresters to incidentally take Oregon Coast coho salmon in accordance with an ITP and the ESA. As of the date of this Amended Complaint, the State of Oregon and Defendants have yet to decide to do so.

7. Therefore, unless and until the Foresters obtain lawful authorization for such activities pursuant to an ITP from NMFS, Plaintiffs respectfully seek declaratory relief and an injunction to halt and prevent logging and logging-related activities on the Tillamook and Clatsop State Forests that are reasonably certain, as represented by the sales in Table 1 and all the evidence to be submitted in this case, to cause take of Oregon Coast coho salmon.

JURISDICTION AND VENUE

8. This Court has jurisdiction over this action pursuant to the ESA citizen-suit provision, 16 U.S.C. § 1540(g), which also empowers the Court to enjoin Defendants from further violations of the ESA and its implementing regulations, *id.* § 1540(g)(1)(A).

9. As required by 16 U.S.C. § 1540(g)(2)(A)(i), Plaintiffs provided Defendants with formal notice of the violations embodied in this complaint. The Center for Biological Diversity submitted a notice of intent to sue by letter dated February 13, 2014 to the State Forester (Doug Decker, Peter Daugherty’s predecessor) and the District Foresters for the Tillamook, Forest Grove, and Astoria districts. Plaintiffs supplemented their notice by additional notice letters dated April 5, 2017 and April 3, 2018.

10. Venue in this district is proper under 16 U.S.C. § 1540(g)(3)(A) and 28 U.S.C. § 1391(b)(2).

PARTIES

11. Plaintiff the CENTER FOR BIOLOGICAL DIVERSITY [hereinafter “the Center”] is a non-profit organization that is dedicated to the preservation, protection, and

restoration of biological diversity, native species, and ecosystems. The Center is incorporated in California and headquartered in Tucson, Arizona with offices throughout the United States and Mexico. The Center has long advocated for coho salmon protection. The Center has previously brought litigation to ensure development of a plan to recover the Oregon Coast population of coho salmon. The Center has worked for conservation of streams occupied by coho salmon from development in California. The Center's Portland, Oregon office and Endangered Species Program have advocated for protections for old-growth and private and Oregon forestlands by attending and testifying at Board of Forestry and State Land Board meetings, and by bringing litigation to secure greater protections for imperiled species on State forestlands. The Center has more than 63,000 members, including over 1,600 in Oregon, many of whom enjoy exploring Oregon's forestlands and observing, studying, fishing for and photographing coho salmon. The Center's members are injured by logging and road construction, improvement, use, and maintenance, and related activities, as authorized by Defendants and represented by the timber sales in Table 1, on high-risk or landslide hazard locations, erosion-prone slopes, or hydrologically connected areas, which causes sediment and debris to be delivered to coho salmon-bearing streams and take of Oregon Coast coho salmon.

12. Representing approximately 10,000 members and supporters, Plaintiff CASCADIA WILDLANDS is a Eugene, Oregon-based non-profit organization that is devoted to conservation of the Cascadia Bioregion, which extends from northern California to southeastern Alaska. Cascadia Wildlands uses a combination of education, organizing, outreach, litigation, advocacy, and collaboration to defend wild places and promote sustainable, restoration-based forestry. Cascadia Wildlands has long advocated for improved management of forests, for the protection of older forests, and for the recovery of imperiled species dependent on older forest

habitats such as Oregon Coast coho salmon. For over a decade, Cascadia Wildlands has campaigned for better protections for the Tillamook and Clatsop State Forests and imperiled species there, including Oregon Coast coho salmon. Cascadia Wildlands has members who regularly enjoy, view, study, and/or fish for coho salmon on the Clatsop and Tillamook State Forests, and who are injured by logging and road construction, improvement, use, and maintenance, and related activities, as authorized by Defendants and represented by the timber sales in Table 1, on high-risk or landslide hazard locations, erosion-prone slopes, or hydrologically connected areas, which causes sediment and debris to be delivered to coho salmon-bearing streams and causes take of Oregon Coast coho salmon.

13. Plaintiff NATIVE FISH SOCIETY is the leading science-based native fish conservation organization in the Pacific Northwest, with over 3,700 members and supporters and 87 River Stewards. Dedicated to utilizing the best science available, Native Fish Society is a 501(c)(3) non-profit corporation that advocates for the recovery and protection of wild, native fish, including Oregon Coast coho salmon, and promotes the stewardship of the habitats that sustain them. Native Fish Society has members who regularly enjoy, view, study, and/or fish for coho salmon on the Tillamook and Clatsop State Forests and who are injured by logging and road construction, improvement, use, and maintenance, and related activities, as authorized by Defendants and represented by the timber sales in Table 1, on high-risk or landslide hazard locations, erosion-prone slopes, or hydrologically connected areas, which causes sediment and debris to be delivered to coho salmon-bearing streams and causes take of Oregon Coast coho salmon.

14. Defendant PETER DAUGHERTY, Ph.D., is the State Forester of Oregon. The State Forester: develops, reviews, and approves written plans; and develops, reviews, authorizes,

and sells timber sales that allow logging, road construction, improvement, use, and maintenance, and related activities, on the State Forests. Defendant Daugherty is sued in his official capacity.

15. Defendant KATHERINE SKINNER is the District Forester for the Tillamook District, which includes a large portion of the Tillamook State Forest. District Forester Skinner: develops, reviews, and approves written plans that govern the Tillamook District; and develops, reviews, authorizes, and sells timber sales that allow logging, road construction, improvement, use, and maintenance, and related activities, on the Tillamook District. Ms. Skinner is sued in her official capacity.

16. Defendant MICHAEL CAFFERATA is the District Forester for the Forest Grove District, which includes a portion of the Tillamook State Forest. District Forester Cafferata: develops, reviews, and approves written plans that govern the Forest Grove District; and develops, reviews, authorizes, and sells timber sales that allow logging, road construction, improvement, use, and maintenance, and related activities, on the Forest Grove District. Mr. Cafferata is sued in his official capacity.

17. Defendant DANIEL GOODY is the District Forester for the Astoria District, which includes the Clatsop State Forest. District Forester Goody: develops, reviews, and approves written plans that govern the Astoria District; and develops, reviews, authorizes, and sells timber sales that allow logging, road construction, improvement, use, and maintenance, and related activities, on the Astoria District. Mr. Goody is sued in his official capacity.

LEGAL BACKGROUND

I. THE ENDANGERED SPECIES ACT PROHIBITS ANY PERSON FROM CAUSING INCIDENTAL TAKE OF OREGON COAST COHO SALMON WITHOUT AN INCIDENTAL TAKE PERMIT.

18. Congress enacted the ESA in 1973 to “provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, ... a program for the conservation of such endangered and threatened species, and to take such steps as may be appropriate to achieve [these] purposes” 16 U.S.C. § 1531(b). “Conservation” or “to conserve” under the ESA means “to use and the use of all methods and procedures which are necessary to bring any [listed] species to the point at which the measures provided pursuant to this Act are no longer necessary.” *Id.* § 1532(3).

19. To achieve its conservation purpose, the ESA provides a framework for listing and substantively protecting species that are at risk of extinction and recovering them to the point where the Act’s protections are no longer necessary.

A. The Listing Process

20. The ESA vests administration of the Act for marine species, including salmonid species, in the Secretary of Commerce. The Secretaries have delegated their authorities under the Act to the U.S. Fish and Wildlife Service, which administers the Act as to terrestrial and freshwater species, and to NMFS, respectively [together hereinafter “the Services” or “Service”]. 50 C.F.R. § 402.01(b). NMFS administers the Act for Oregon Coast coho salmon.

21. The Service determines whether “species” under its jurisdiction are “endangered” or “threatened.” An “endangered species” is “any species which is in danger of extinction throughout all or a significant portion of its range” 16 U.S.C. § 1532(6). A species is

“threatened” if it is “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” *Id.* § 1532(20).

22. A “species” is defined by the ESA to include “any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature.” *Id.* § 1531(16).

23. Congress did not define the term “distinct population segment” (“DPS”) in the Act. However, NMFS has issued a policy for application of the authority to list DPSs of Pacific salmon stocks. *See Policy on Applying the Definition of Species Under the Endangered Species Act to Pacific Salmon*, 56 Fed. Reg. 58,612 (Nov. 20, 1991) . Under this policy, NMFS will consider a population of Pacific salmon, also called a “stock” or a “run,” to be a DPS—and hence a “species” that is eligible to be protected as threatened or endangered under the ESA—if the population is an “evolutionarily significant unit” [hereinafter “ESU”] of the species. *Id.* A population is an ESU if it (1) is “substantially reproductively isolated from other nonspecific population units;” and (2) “represent[s] an important component in the evolutionary legacy of the species.” *Id.* at 58,618.

24. NMFS applies the “best scientific and commercial data available” to listing determinations and assesses the species’ status against five statutory factors including: (1) “the present or threatened destruction . . . of [the species’] habitat;” (2) the “overutilization of the species” by humans; (3) disease or predation; (4) “the inadequacy of existing regulatory mechanisms;” and (5) “other natural or manmade factors affecting” the species’ existence. 16 U.S.C. § 1533(a). Any one or more of these factors supports a determination to list a species as endangered or threatened under the ESA. 50 C.F.R. § 424.11(c).

25. Following listing, the ESA also requires the Services to develop a “recovery plan” for each listed species. 16 U.S.C. § 1533(f). A recovery plan is a science-based assessment of a species’ status and a road map to recovery through specific criteria and site-specific management actions.

B. The ESA’s Take Prohibition

26. Once a species is listed as threatened or endangered, the ESA imposes substantive protections to reverse the extinction threat and recover the species to the point when the Act’s protections are no longer necessary.

27. The ESA prohibits any “person”—including “any officer, employee, agent, department, or instrumentality . . . of any State, municipality, or political division of a State,” or “any State, municipality, or political subdivision of a State,” *id.* § 1532(13), from causing the “take” of any species that is listed as “endangered.” *Id.* § 1538(a)(1)(B).

28. To “take” a species means “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect” any individual of the species, or “attempt to engage in any such conduct.” *Id.* § 1532(19).

29. Through its implementing regulations, NMFS defines “harm” within the definition of “take” to mean “an act which actually kills or injures fish or wildlife.” 50 C.F.R. § 222.102. “Such an act may include significant habitat modification or degradation which actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including breeding, spawning, rearing, migrating, feeding, or sheltering.” *Id.*

30. To “harass” a species within the definition of “take” means to commit “an intentional or negligent act or omission which creates the likelihood of injury to wildlife by

annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering.” *Id.* § 17.3.

31. Section 4(d) of the ESA allows NMFS, whenever it “deems [it] necessary and advisable to provide for the conservation” of a threatened species, to issue a special regulation that extends the take prohibition found in ESA section 9(a)(1)(A)(2) to a species that is listed as threatened. 16 U.S.C. § 1533(d). This is known as a “special rule” or a “4(d) rule.” Special rules apply only to threatened species because Section 9 of the ESA expressly extends the take prohibition to endangered species. *Id.* § 1538(a)(2). The ESA prohibits any “person” from “violat[ing] any regulation pertaining to” any threatened species. *Id.* (a)(1)(G).

32. To avoid liability and potential prosecution by the Service or parties invoking the ESA’s citizen-suit provision, *id.* § 1540(a), (b), (g), a “person” can obtain a permit from NMFS to carry out otherwise lawful activities that result in take of coho salmon, such as logging and road construction. *Id.* §§ 1539(a)(1)(B), 1532(13) (defining “person” to include “an individual, corporation, partnership, trust, association, or any other private entity; or any officer, employee, agent, department, or instrumentality of the Federal Government, of any State, municipality, or political subdivision of a State, or of any foreign government; any State, municipality, or political subdivision of a State; or any other entity subject to the jurisdiction of the United States”). This permit is known as an ITP.

33. To obtain an ITP, a person must prepare and submit an HCP for NMFS’s approval. An HCP must specify: (1) how an activity will result in incidental take of a listed species; (2) measures that will minimize and mitigate such take; and (3) why less harmful alternatives are not being utilized. *Id.* § 1539(a)(2)(A). If NMFS determines that an applicant’s HCP meets these requirements and that issuance of an ITP likely will not jeopardize the species’

continued existence, the agency will issue an ITP with “terms and conditions as the [Service] deems necessary or appropriate” *Id.* § 1540(a)(2)(B).

FACTUAL BACKGROUND

II. OREGON COAST COHO SALMON

34. Coho salmon are anadromous fish in the salmon family that occur in marine waters, rivers, and streams around the Pacific Rim. Also called “silver salmon,” these salmon grow to about 28 inches long and weigh seven to 11 pounds.

35. Coho salmon use small streams with stable gravel beds for spawning, which occurs primarily in November and December. Coho salmon eggs—which are deposited in nests called “redds”—hatch during the late winter or early spring, remaining as larvae for six or seven weeks until they grow fins and are able to hunt invertebrates, at which time they emerge from the gravel and feed in streams and other freshwater habitats until they migrate to sea.

36. For the first year or two, young coho remain in their natal streams, utilizing side channels, pools created by large woody debris, beaver ponds, and other areas with slow-moving water and shelter from predators. They grow into smolts and migrate to the ocean from March through July, where they typically remain for a year and a half, feeding on invertebrates and small fishes, and finally migrate back to their streams to spawn and die.

37. Because coho salmon spend up to half their lives in freshwater streams and rivers, the condition of these habitats determines whether they will survive and successfully reproduce.

38. In the early 1900s, one to two million adult coho salmon returned annually from the sea to Oregon coastal rivers and streams. By the 1960s, that number had declined more than 90 percent, to an estimate of just 45,000 to 150,000 fish.

39. By the 1990s, the population complex of coho salmon returning to rivers along the Oregon Coast had dropped to fewer than about 30,000 adults, below five percent of estimates from the early 1900s. By 1997, the Oregon Coast population was down to just 26,200 fish. A 1998 assessment of the coho population in the Tillamook Bay basin found a significant probability of extirpation due in large part to poor-quality freshwater habitat.

40. In 1998, NMFS listed the population of coho salmon along Oregon Coast—i.e., the “Oregon Coast coho salmon evolutionary significant unit”—as a “threatened” species under the ESA. *See* 63 Fed. Reg. 42,587 (Aug. 10, 1998); 50 C.F.R. § 227.4(o). The Oregon Coast coho salmon ESU ranges from the Necanicum River near Seaside, Oregon, to the Sixes River near Port Orford, Oregon, and includes all freshwater habitats (rivers, streams, and lakes).

41. Mostly due to favorable ocean conditions from 2011 to 2014, Oregon Coast coho salmon ESU abundance rebounded to more than 350,000 spawners, but then declined to 57,000 in 2015 and stayed below 76,000 through 2017. (As of the date of this filing, updated abundance data for 2018 were not yet available).

42. Following multiple court challenges and status reviews, NMFS reissued its listing of the ESU in 2005, 2008, and 2011. *See* 70 Fed. Reg. 37,160 (June 28, 2005); 73 Fed. Reg. 7816 (Feb. 11, 2008); 76 Fed. Reg. 35,755 (June 20, 2011); *see also* 75 Fed. Reg. 29,489-90 (May 26, 2010) (overview of ESA listing of Oregon Coast coho salmon ESU).

43. In 2008, NMFS finalized the Special Rule pursuant to Section 4(d) of the ESA, 16 U.S.C. § 1533(d), that extends Section 9(a)(1)(B)’s take prohibition to the Oregon Coast coho salmon ESU. *See* 50 C.F.R. § 223.203; 73 Fed. Reg. at 7818. NMFS re-issued the Special Rule in 2011. 76 Fed. Reg. 35,755, 35,770 (June 20, 2011).

44. The Special Rule identifies logging and road construction in the range of the Oregon Coast coho salmon ESU as among the activities that cause take and are subject to the take prohibition. 50 C.F.R. § 223.203 (Special Rule) (delineating activities exempt from the Section 9 take prohibition). In particular, “[a]ctivities that . . . could potentially ‘harm’ salmon”—like logging, “road construction in riparian areas” and areas that are “susceptible to mass wasting and surface erosion,” and the “removal of large woody debris and ‘sinker logs’ or riparian shade canopy”—will “result[] in a violation of the Section 9 take and other prohibitions.” 73 Fed. Reg. at 7830. Consequently, persons engaging in these activities must obtain an ITP from NMFS pursuant to ESA Section 10(a)(1)(B) or cease the activities that cause take. Otherwise they risk exposure to enforcement by NMFS and/or private parties of the Act’s take prohibition in Section 9, like Plaintiffs in this action, who invoke the ESA’s citizen-suit provision. 16 U.S.C. § 1540(g)(1)(A).

III. THE TILLAMOOK AND CLATSOP STATE FORESTS

A. Tillamook State Forest

45. The 364,000-acre Tillamook State Forest, the largest state forest in Oregon, consists primarily of second-growth, 40- to 60-year-old Douglas-fir, with a 35- to 55-year-old conifer and hardwood understory and riparian areas along perennial streams. These forestlands burned in a series of fires from 1933 to 1951 known as the “Tillamook Burn.”

46. After the Tillamook Burn, private owners of these forestlands logged millions of board feet from the burned forests, but then defaulted on their taxes and abandoned the logged areas. The lands reverted to several counties, which deeded them to the State of Oregon beginning in 1940.

47. ODF undertook a massive reforestation and rehabilitation effort in the Tillamook Burn area from 1948 to 1973, when the Tillamook State Forest was established.

48. Seven rivers flow through the Tillamook State Forest to the Pacific Ocean. They are (1) the Wilson, Trask, Miami, and Kilchis rivers, which flow into Tillamook Bay; (2) the Nehalem River, which flows into the Pacific Ocean; and (3) the Nestucca and Little Nestucca rivers, which flow into Nestucca Bay. NMFS has designated portions of these watersheds as critical habitat for the Oregon Coast coho salmon ESU due to the presence of spawning and rearing habitat and conservation value. *See* 50 C.F.R. § 226.212(u); 73 Fed. Reg. at 7838-39.

49. ODF's Tillamook and Forest Grove districts develop implementation and annual operations plans and offer and authorize timber sales that include clear-cutting and road construction in the Tillamook State Forest.

B. Clatsop State Forest

50. Established in 1937, the 136,000-acre Clatsop State Forest is the second-largest Oregon State Forest. The Clatsop State Forest does not include lands in the areas of the Tillamook Burn, but like the Tillamook State Forest, consists primarily of lands that came under State ownership after private landowners logged but neglected to pay taxes on them.

51. Due to extensive logging, most of the Clatsop State Forest consists of second-growth Douglas fir stands that are 30 to 70 years old.

52. The Nehalem River, North Fork Nehalem River, Necanicum River, and portions of their tributaries flow through the Clatsop State Forest and are designated as critical habitat for the Oregon Coast coho salmon ESU. *See* 50 C.F.R. § 226.212(u).

53. ODF's Astoria District develops implementation and annual operations plans and offers and authorizes timber sales that include clear-cutting and road construction in the Clatsop

State Forest. ODF's Forest Grove and Tillamook districts also manage small areas of the Clatsop State Forest, for which they also develop implementation and annual operations plans, and plan, sell, and authorize timber and road construction projects.

III. LOGGING AND ROAD CONSTRUCTION IN THE OREGON COAST RANGE HAVE CONTRIBUTED TO THE DECLINE OF OREGON COAST COHO SALMON.

54. NMFS listed the Oregon Coast coho salmon ESU due to declining abundance from the loss of freshwater habitat, the consequence of (among other human activities) logging—especially clear-cutting on steep or unstable slopes, in riparian areas, and along debris flow paths—and road construction, improvement, use, and maintenance associated with logging and log-hauling in the Oregon Coast range. *See, e.g.*, 73 Fed. Reg. at 7821. Soil erosion and stream sedimentation from these activities “seriously degrade[]” pools and side channels where coho salmon spawn and spend their first phases of life. 60 Fed. Reg. 38,011, 38,024 (July 25, 1995); *see also* 62 Fed. Reg. 24,588, 24,592-93 (May 6, 1997) (logging removes natural vegetation; destroys riparian areas; reduces large woody debris; and triggers soil disturbance, mass wasting events, surface erosion, and sedimentation).

55. In listing the Oregon Coast coho salmon ESU, NMFS was particularly concerned about ODF-authorized clearing of trees along streams and other riparian areas with no or ineffective riparian “buffers.” Logging in the Oregon Coast range reduces and eliminates the input of large woody debris to streams. When not logged, trees in riparian areas fall into streams. Such large woody debris creates the complex stream structure—the pools, refuges, and side channels—that is crucial to coho salmon survival. Hence, logging effectively eliminates or reduces such large woody debris, thereby eliminating and reducing the pools and other refuges that are essential for juvenile coho salmon to survive and grow into smolts, and ultimately to reproduce. 62 Fed. Reg. at 24,592-93.

56. For many years before and after NMFS listed the Oregon Coast coho salmon ESU as a threatened species in 1998, the State of Oregon developed conservation plans and promised stronger protections to avert listing under the ESA. However, NMFS determined that the State's plans and rule changes were not adequate to conserve coho salmon. *See, e.g.*, NMFS, FINAL ESA RECOVERY PLAN FOR OREGON COAST COHO SALMON, S-6, 3-23 – 3-24 (2016), http://www.westcoast.fisheries.noaa.gov/publications/recovery_planning/salmon_steelhead/domains/oregon_coast/final_oc_coho_recovery_plan.pdf [hereinafter "Recovery Plan"]; 73 Fed. Reg. at 7821.

57. Since 1998, NMFS has urged parties who engage in activities that cause incidental take of coho salmon to prepare HCPs and obtain ITPs pursuant to ESA Section 10(a)(2)(A). *See, e.g.*, 69 Fed. Reg. 33,102, 33,169, 33,154 (June 14, 2004). The State of Washington did so for its forestry program in 2006. *See* WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES, FOREST PRACTICES HABITAT CONSERVATION PLAN (2006), <https://www.dnr.wa.gov/programs-and-services/forest-practices/forest-practices-habitat-conservation-plan#HCPSections>.

58. NMFS has emphasized that an HCP and ITP for Oregon Coast State forestlands was "particularly important since about 65 percent of the habitat in the range of the Oregon Coast ESU is in non-Federal ownership." 63 Fed. Reg. 42,587, 42,590 (Aug. 10, 1998).

59. When NMFS first proposed to list the Oregon Coast coho salmon ESU in 1995, NMFS and ODF were developing an HCP that, if finalized and approved by NMFS, could have allowed ODF to obtain an ITP for the incidental take of ESA-listed species, including Oregon Coast coho salmon, from ODF-authorized logging and roads. *See* 62 Fed. Reg. at 24,602; 63

Fed. Reg. at 42,590. This was known as the “Western Oregon State Forests Habitat Conservation Plan.” 62 Fed. Reg. at 24,602.

60. ODF produced a draft of this HCP in November 1997 [hereinafter “1997 Draft HCP”].

61. NMFS detailed many substantive concerns with the 1997 Draft HCP and questioned that it would adequately protect coho salmon from logging and roads, especially from reduced stream shade and recruitment of large woody debris, slope instability, and sedimentation of coho salmon-bearing streams. ODF’s refusal to address these concerns stymied the development, completion, and implementation of a final HCP.

62. ODF abandoned this HCP process.

63. In 2010, ODF adopted a Revised Forest Management Plan for ODF-authorized logging activities in western Oregon. ODF, NORTHWEST OREGON STATE FORESTS MANAGEMENT PLAN REVISED PLAN (2010), <https://www.oregon.gov/ODF/Documents/AboutODF/2010FMPNorthwestOregon.pdf> [hereinafter “2010 FMP”].

64. The 2010 FMP contains minimal protections for coho salmon. These protections do not prevent take. In the 2010 FMP, ODF acknowledged that the routine authorization of clear-cutting and short logging rotations reduces snags and prevents large woody debris from entering streams that are essential coho breeding and rearing habitat. ODF has admitted that under the 2010 FMP, the forest conditions necessary to conserve coho salmon will not be achieved soon, and even under the best-case scenario, may not be achievable for decades. *See, e.g.*, OREGON DEPARTMENT OF FORESTRY, FOREST GROVE DISTRICT 2018 ANNUAL OPERATIONS PLAN 31, 32 (2017),

<https://www.oregon.gov/ODF/Documents/AboutODF/Forest%20Grove%20District%202018%20Annual%20Operations%20Plan.pdf> (discussing the need “to restore the ecological processes and functions that create and maintain self-sustaining habitats over the long term . . . as resources allow”).

65. In the Recovery Plan, NMFS points to “threats that reduce the quantity and quality of coho salmon rearing habitat”—including sedimentation and the reduction of large woody debris—as factors that are “degrad[ing]” and “deteriorating” freshwater habitats and impeding recovery of the Oregon Coast ESU. Recovery Plan S-5, S-6. NMFS found that existing regulatory mechanisms have not sustained the species long-term, *id.* at S-6, and that the “quality . . . and quantity of freshwater habitats leaves the [threatened] ESU at risk of becoming an endangered species.” *Id.* at S-7.

IV. OREGON’S REGULATORY AND STATUTORY SCHEME FOR AUTHORIZING LOGGING AND ROAD CONSTRUCTION, IMPROVEMENT, AND USE OPERATIONS ON THE TILLAMOOK AND CLATSOP STATE FORESTS.

66. Logging on State forestlands in Oregon is regulated under the Oregon Forest Practices Act (“OFPA”), its implementing regulations, and forest and district management and other plans. OR. REV. STAT. §§ 527.610-527.785 (2017). In addition, ODF, the State Forester, and the District Foresters develop and implement management plans with specific timber sales, log haulage routes, and standards and guidelines to govern logging and roads on the Tillamook and Clatsop State Forests.

A. The Oregon Forest Practices Act

67. Enacted by the Oregon legislature in 1971, OFPA defines—among other things—terms and sets standards for commercial logging of Oregon’s forestlands, including State-owned forestlands. The law shares responsibility for managing the State’s forestlands between ODF,

the State Forester, and the Oregon State Board of Forestry [hereinafter “Board”], a board of seven individuals who are appointed by the Governor and confirmed by the state Senate.

68. The Board has promulgated implementing regulations for OFPA. These regulations specify procedures and standards for authorization of logging and road construction, improvement, use, and maintenance regarding erosion, runoff, water quality, stream channels, and riparian areas. These rules, known as the Oregon “Forest Practice Regulations” (“FPRs”), are found at OR. ADMIN. R. 629-001-0000 to 629-680-0430.

69. Management of State forestlands is regulated under OR. ADMIN. R. 629-035. Management of the Tillamook and Clatsop State Forests is further regulated pursuant to standards and guidelines that are set forth in forest management, implementation, and annual operations plans.

B. The Forest Practice Regulations

70. The State Forester and district foresters (collectively “the Foresters”) manage State forestlands pursuant to the FPRs found at OR. ADMIN. R. 629-035-0000-0500.

71. The FPRs are administered primarily by and at the discretion of the State Forester or his deputies, assistants, employees, or agents.

72. These FPRs direct the Foresters to “actively manage” state forestlands and make available a “sustainable and predictable production of forest products” to realize the lands’ “greatest permanent value.” *See generally* OR. ADMIN. R. 629-035-0020; 629-035-0020(2)).

73. In pursuit of the “greatest permanent value” State and district foresters have emphasized timber production on State forestlands over protection of once-abundant coho salmon and other native wildlife. For example, the FPRs require the State Forester to authorize logging on “any Silviculturally Capable lands” unless prohibited by “a legal or contractual

obligation” or unless he determines that another use will be “more consistent” with GPV. *See* OR. ADMIN. R. 629-035-0050(3)(A). In addition, the FPRs allow the State Forester to authorize timber sales, including clear-cutting, as well as road construction, on “erosion-prone” slopes. OR. ADMIN. R. 629-630-0150(1)-(3); 629-623-0400; 629-623-0800; 629-625-0100.

74. The FPRs do not set additional standards to protect coho salmon and their freshwater habitats from sedimentation caused by landslides. OR. ADMIN. R. 629-623-0700. Protections are triggered only when “[h]igh landslide areas are a risk to public safety.” OR. ADMIN. R. 629-623-0300(7); 629-623-0400(1) (“Operators shall not remove trees from high landslide hazard locations with substantial downslope public safety risk unless a geotechnical report demonstrates to the State Forester that any landslides that might occur will not be directly related to forest practices because of very deep soil or other site-specific conditions.”).

75. The FPRs allow road construction and reconstruction on “very steep slopes,” OR. ADMIN. R. 629-623-0050(2), high landslide hazard locations, OR. ADMIN. R. 629-625-0100(3), and/or “where there is an apparent risk of road-generating materials entering waters of the state” OR. ADMIN. R. 629-625-0100(2)(a).

76. The FPRs permit logging activities that deprive streams of large woody debris, an important component of coho salmon habitat and the foundation of pools and side-channels that coho salmon use, and which, when depleted, exposes coho salmon to predation and limits their ability to obtain food and establish territories. *See* OR. ADMIN. R. 629-640-0110 (acknowledging that many fish-bearing streams “currently need improvement” because “they lack adequate amounts of large woody debris in channels, or they lack other important habitat elements”).

C. Forest Management Planning

77. The OFPA and FPRs are implemented on state forestlands through a series of management plans developed by ODF and the Foresters.

78. First, the State Forester provides a “general management framework” through a “Forest Management Plan” [hereinafter “FMP”] to govern forestry and other activities within a specific region of forestland. OR. ADMIN. R. 629-035-0030(1). FMPs are approved and adopted by the Board as administrative rules. OR. ADMIN. R. 629-035-0105(1)(a).

79. Management activities within each ODF district—including specific timber sales and related road construction, improvement, use, and maintenance—are developed in “implementation and operations plans.” *Id.* An “Implementation Plan” (“IP”) is developed by the State Forester and relevant District Forester every ten years. *Id.* In an IP, the State Forester and District Forester estimate timber inventories and set ten-year goals for timber volume production.

80. The District Foresters plan, develop, and identify specific timber sales for auction in “Annual Operations Plans” (“AOP”).

81. Since 2014, under this management scheme the Foresters have authorized logging on more than 37,000 acres of the Tillamook and Clatsop State Forests—including the clear-cutting of 25,000 acres and partial cutting of 12,000 acres—through at least 186 timber sales, ranging from 100 to 1,000 acres in size across numerous watersheds. Many of these timber sales are on erosion-prone and/or “high landslide hazard locations,” *supra* ¶ 74, that are located above and/or adjacent to coho salmon-bearing streams.

82. Since 1997, NMFS has maintained that Oregon’s statutory and regulatory regime fails to avoid take and inadequately manages logging and road construction on “sensitive,

unstable slopes” that are subject to mass-wasting landslides, and to “address [the] cumulative effects” of logging. 62 Fed. Reg. at 24,596.

V. DEFENDANTS PROXIMATELY AND FORESEEABLY CAUSE TAKE OF COHO SALMON IN THE TILLAMOOK AND CLATSOP STATE FORESTS.

83. The Tillamook and Clatsop State Forests have some of the steepest terrain that can be found anywhere in Oregon’s northern Coast Range. Forty-three percent of the Tillamook District is over 60 percent in steepness; another 39 percent has a gradient of 30 to 60 percent. About thirty-four percent of the Forest Grove District has slopes between 30 and 60 percent, with another 17 percent at more than 60 percent. About 30 percent of the Astoria District has a gradient of at least 30 percent. Watersheds with slopes over 35 percent have been found to deliver more sediments to streams when logged when compared to watersheds that are less steep.

84. Annual rainfall in the Coast Range ranges from 45 to 100 inches, and even more in some places.

85. Because of this steepness and wet climate, both State Forests are riddled with terrain features that are inherently prone to landslides, most notably hollows that hold water on steep slopes. When such features are logged or destabilized by road construction, the incidence of landslides is greatly increased, and the steep and channelized nature of the terrain means these landslides will frequently become debris flows that deposit large amounts of harmful sediments directly into coho streams.

86. Defendants’ management of the Tillamook and Clatsop State Forests still prioritizes production of timber revenue for counties and for the ODF budget over protection of habitat for coho salmon and other native wildlife. Clear-cutting on these Forests’ erosion-prone slopes has increased the number and frequency of landslides that deliver fine sediment to freshwater streams. Coho salmon redds and alevins (newly hatched salmon still carrying the

yolk which remain in gravel as they continue to grow) in the path of landslides are buried, entombed, or suffocated along with the gravel beds, wetlands, and side channels that they use for spawning and rearing.

87. In addition to largely eliminating root systems that prevent landslides and hold fine sediments in place on steep slopes, logging—and clear-cutting in particular—reduces and eliminates the quantity and size of large woody debris that is delivered to streams. These impacts lead to higher concentrations of fine sediment in coho salmon-bearing streams, reduced stream complexity, and continuing significant impairments to coho salmon and their habitat, which in turn leads to increased mortality of coho salmon eggs, alevin, and fry.

88. ODF’s emphasis on timber production has also resulted in an extensive network of roads to service logging operations and the hauling of logs from the Tillamook and Clatsop State Forests, which exacerbates the deleterious landslides, debris flows, and chronic bleeding of sediments into streams. These forests contained nearly 2,500 miles of forest roads by 2001 and even more miles exist today.

A. The 2001 Forest Management Plan

89. ODF first issued the FMP in 2001. ODF, NORTHWEST OREGON STATE FORESTS MANAGEMENT PLAN (2001) [hereinafter “2001 FMP”].

90. The 2001 FMP aimed for a “mosaic” of forestlands, with 40 to 60 percent of the forests consisting of “layered,” “old forest structure” and 40 to 60 percent consisting of younger stands primarily created by clear-cutting.

91. The 2001 FMP established restrictions in “riparian management areas” by limiting logging within “stream bank” (stream to 25 feet), “inner” (25 to 100 feet), and “outer” (100 to 170 feet) zones. The degree to which logging is limited in these zones varies according

to the size of the stream and whether it has fish, with the fewest restrictions on headwater reaches. These widths of even the widest buffers prescribed in the 2001 FMP are about half of the buffer widths that are required on federal public lands, where for many streams logging is completely prohibited in buffers at least equal to two tree heights, or roughly 300 feet.

92. The buffers set in the 2001 FMP for Oregon State forestlands do not apply to most small, non-fish-bearing streams that help keep coho salmon-bearing streams cool, with low sediment inputs, and which provide a source of large woody debris that is critical to coho salmon habitat.

93. ODF applied many of the standards in the 2001 FMP to the draft HCP that ODF had begun to develop. However, NMFS advised ODF that these standards would be inadequate to avoid or even minimize take of coho salmon and advised that it could not approve or authorize an ITP that was based on them.

94. In 2003, ODF amended the FMP with additional measures to conserve coho habitat, including by adopting a “Salmon Anchor Habitats” (“SAH”) strategy to respond to NMFS’s concerns about unregulated take of coho salmon. Under the SAH strategy, ODF designated 17 small watersheds as the “core of salmon recovery” on the State Forests. In those watersheds, ODF increased protections for riparian buffers and restricted the percentage of SAH watersheds that could be clear-cut during a 10-year period. As of 2009, 38 percent of the Tillamook District, 29 percent of the Forest Grove District, and 22 percent of the Astoria District consisted of SAHs.

95. The SAH strategy failed to satisfy NMFS’s concerns, with the federal biologists concluding that the state FMP would not “provide . . . habitat that is capable of supporting [Oregon Coast coho salmon] populations that are viable during both good and poor marine

conditions.” 75 Fed. Reg. 29,489, 29,500 (May 26, 2010) 75 Fed. Reg. 29,489, 29,500 (May 26, 2010).

96. During the implementation of the 2001 FMP through 2010, Defendants did not complete a final HCP or obtain an ITP from NMFS.

B. The 2010 Revised Forest Management Plan

97. In 2010, the Board and ODF revised the 2001 FMP to accelerate and increase timber production from the Tillamook and Clatsop State Forests. *See* 2010 FMP.

98. To meet these even greater timber revenue targets, ODF had to reduce its minimum targets for layered, complex forests. Under the 2001 FMP, at least 40 percent of the covered forests were to consist of layered, old-forests. The 2010 FMP reduced that low-end target to 30 percent.

99. In the 2010 FMP, the State Forester and ODF also reduced or eliminated protections for Oregon Coast coho salmon and their stream habitats. For example, they replaced the SAH strategy, which NMFS had deemed inadequate, with an even weaker strategy called “Aquatic Anchors.” Aquatic Anchors cover the same 17 small watersheds as the SAH Strategy did but eliminated SAH’s cap on clear-cutting that was the only substantive protection of watersheds that were to be the “core of salmon recovery.”

100. For areas outside Aquatic Anchors, the 2010 FMP established restrictions in “riparian management areas” by limiting logging within “inner” (25 to 100 feet) and “outer” (100 to 170 feet) riparian zones, depending on the size of streams and whether they support fish. Again, these widths are about half of the buffer widths that are required on federal public lands, where for most streams, operators must retain buffers that are at least equal to two tree heights, or roughly 300 feet.

101. The buffers set in the 2010 FMP for Oregon do not apply to most small, non-fish-bearing streams that help to keep streams cool and tend to occur on steep, landslide-prone slopes. This lack of buffers results in the delivery of higher concentrations of fine sediments to streams which would have provided shade and eliminates sources of large woody debris that are essential to coho salmon habitat.

102. These changes have paved the way for the Foresters to approve more clear-cutting, log-hauling, and road construction, improvement, use, and maintenance in watersheds with stretches of natal streams where coho salmon breed, feed, and find refuge. In the Tillamook, Astoria, and Forest Grove Districts, the amount of timber sold annually has increased since 2011.

103. With the adoption of the 2010 FMP, the State Forester and ODF did not resolve NMFS's concerns about increased concentrations of fine sediment in coho salmon-bearing streams from logging and roads, or the lack of stream shade and large woody debris from inadequate and nonexistent riparian buffers. Instead, pointing to its Species of Concern policy, Aquatic Anchor Strategy, and a "take-avoidance policy," ODF broadly declared that these efforts would avoid all take of coho salmon. In 2010 Defendants abandoned the HCP process altogether.

104. To date, ODF and Defendants have not submitted a final, valid HCP to NMFS or obtained an ITP pursuant to sections 10(a)(1)(B) and 10(a)(2) of the ESA. *See* 16 U.S.C. § 1539(a)(1)(B), (a)(2).

105. Upon information and belief, the State of Oregon has yet to commit to preparation of an HCP or to seek and obtain an ITP that would allow the Foresters continue to plan and authorize logging on the Tillamook and Clatsop State Forests in accordance with the ESA.

VI. INCREASED LANDSLIDES, SEDIMENTATION, AND REDUCED LARGE WOODY DEBRIS FROM LOGGING AND ROADS AUTHORIZED BY DEFENDANTS IN THE TILLAMOOK AND CLATSOP STATE FORESTS CAUSE DEATH, INJURY, AND HARASSMENT OF COHO SALMON AND SIGNIFICANTLY DEGRADE COHO SALMON HABITAT.

106. ODF, the State Forester, and the District Foresters plan, sell, and authorize multiple timber sales on the Tillamook and Clatsop State Forests every year under the 2010 FMP, Implementation Plans, and Annual Operations Plans for the Tillamook, Forest Grove, and Astoria districts. As represented by the timber sales identified in Table 1, *supra* ¶ 4, these sales frequently involve clear-cutting on erosion-prone slopes that have a high risk of landslides, that are located above and/or adjacent to streams used by Oregon Coast coho salmon, and/or that entail construction and hauling of logs on roads that are “hydrologically connected” to coho salmon-bearing streams—meaning that when it rains surface water flows directly or indirectly from the roads into streams.

107. ODF and the Foresters maintain an extensive network of roads throughout the Tillamook and Clatsop State Forests for the purposes of logging and hauling felled trees. When Defendants adopted the Implementation Plans for the Tillamook, Forest Grove, and Astoria districts in 2009 and 2011, there were about 2,658 miles of active roads on the Tillamook and Clatsop State Forests, enough to stretch from Portland to Columbus, Ohio.

108. Since 2010, the Foresters have authorized the addition of dozens of miles of new road construction every year. Between 2014 and 2020, the Tillamook, Forest Grove, and Astoria Districts have authorized the construction of 233 miles of new roads, or an average of 33 miles per year, and the gravel resurfacing of up to 973 miles of existing roads, or about 139 miles per year. Many miles of these roads are adjacent to or upstream from coho salmon-bearing streams.

109. Logging roads that the Foresters authorize for construction, maintenance, and use increase sediment to coho salmon-bearing streams by triggering landslides and by direct discharge.

110. A multitude of scientific studies from the last fifty years in the Oregon Coast Range and elsewhere have documented the increase in erosion that results from logging. Plaintiffs will utilize these studies to prove that clear-cutting and logging roads, such as those authorized by Defendants in the timber sales in Table 1, increase the frequency of landslides by up to ten times the natural background rate, delivering larger quantities of fine sediment and debris to freshwater habitats that are utilized by coho salmon for spawning and rearing. In part, this is because landslides tend to travel farther distances in clear-cuts than in forested stands. These landslides and debris flows deliver fine sediments to streams that overwhelm the streams' natural capacity to transport sediments downstream. In the process, these sediments and debris bury gravel beds and pools that are utilized by coho salmon for spawning, which reduces flow and delivery of dissolved oxygen, suffocating the eggs and alevins, and fills pools needed by juvenile coho salmon for foraging and predator avoidance, leading to increased death and displacement of young coho salmon.

111. Substantial portions of the Tillamook and Clatsop State Forests are characterized by steep slopes that have terrain that is at significant risk of landslides when clear-cut or dissected by roads. *See supra* ¶ 83.

112. Past logging and road construction on the Tillamook and Clatsop State Forests have triggered frequent landslides. These landslides have in many cases transformed into debris flows and deposited large quantities of fine sediment into coho salmon-bearing streams. This has resulted in take of coho salmon.

113. ODF does not monitor whether logging or roads are causing landslides on the state forests. However, the Oregon Department of Geology and Mineral Industries maintains a database known as the “Statewide Landslide Information Database for Oregon, or “SLIDO,” which includes locations and descriptions of landslides and “contributing factors” to landslides across the state, including in the state forests.

114. According to SLIDO, there were at least 76 landslides on the Tillamook and Clatsop State Forests between 2005 and 2009, with roads or clear-cuts as contributing factors to their initiation. In a 1987 study of thirty-six debris flows in the Oregon Coast Range, fifty percent were found to have originated at roads and forty-five percent at clear-cuts, with only five percent found to have originated in forested stands. Frederick J. Swanson et al., *Mass Failures and Other Processes of Sediment Production in Pacific Northwest Forest Landscapes*, in STREAMSIDE MANAGEMENT: FORESTRY AND FISHERY INTERACTIONS 9 (Ernest O. Salo & Terrance W. Cundy, eds., 1987). Both these data sources highlight the direct link between logging and logging roads on landslide initiation.

115. Pictured below are two representations of a landslide and debris flow on the Tillamook State Forest that was triggered by clear-cut logging and road construction on a high-risk, erosion-prone slope. The clear-cut areas in the photographs were units of the “NW Combo” timber sale which Defendants planned and auctioned in 2010. The landslide and resulting debris flow that resulted from this timber sale deposited fine sediments to the West Fork of the North Fork of the Wilson River, a reach which is known to be used by coho salmon for spawning and rearing. The landslide also destroyed a portion of the West Fork of the North Fork Road.



Figure 1. View of landslide triggered by the NW Combo timber sale, showing path down to West Fork of the North Fork Wilson River.



Figure 2. Landslide initiation site in NW Combo clear-cut unit with road construction below.

116. The vast network of roads Defendants maintain on the Tillamook and Clatsop State Forests chronically deposits sediment into coho salmon-bearing streams. Substantial stretches of this road network are hydrologically connected; during rain events, surface water flows directly or indirectly from these roads into streams. Construction, maintenance, and use of roads for hauling timber increases sediment destabilization, mobilization, and runoff of sediment into streams.

117. Whether through landslides, debris flows, and/or chronic inputs from roads and other erosion-prone areas, increased sedimentation of coho salmon-bearing streams has severe, deleterious effects on coho salmon and their habitat. Fine sediments infiltrate and bury well-oxygenated gravel beds that coho salmon require for spawning, suffocating or entombing eggs and alevins.

118. Clearcutting also increases peak flows in streams, which can lead to flooding that scours the eggs from redds, resulting in their death.

119. Sediment deposition in coho salmon-bearing streams limits the growth and abundance of the invertebrates that are the primary food source for young salmon. Sediments become suspended in the water column, inhibiting feeding and, if severe enough, causing direct physiological stress for salmon.

120. Sediment deposition caused by landslides and runoff from logging and roads on the Tillamook and Clatsop State Forests buries and destroys pools used by young coho salmon for foraging and for finding refuge from predators.

121. Particularly in small, headwater reaches, landslides, debris flows, and chronic sediment deposition can overwhelm the capacity of streams to transport sediments downstream, leading to the overaccumulation of sedimentation in stream beds and creating wide, flat,

meandering channels that lack the habitat features—including spawning gravels and pools created by large woody debris—that are necessary for successful breeding, feeding, and sheltering.

122. Chronic pulses of sediment from hydrologically connected roads planned and authorized by Defendants on the Tillamook and Clatsop State Forests in connection with timber sales such as those identified in Table 1 negatively affect coho salmon habitat for miles downstream, and the effects last for decades.

123. Logging reduces the amount of large woody debris.

124. In most small streams like those used by young coho salmon on the Tillamook and Clatsop State Forests, the 2010 FMP does not require retention of the possible large woody debris that would otherwise create complex spawning habitat, except in some circumstances.

125. ODF-authorized logging in the Tillamook and Clatsop State Forests has further reduced or eliminated stream complexity that is critical for coho salmon to rest, feed, and avoid predators, impacting the quantity and quality of coho stream habitat and resulting in take of coho salmon.

126. Riparian buffers established by the State Forester and ODF do not adequately protect coho salmon habitat from these causes of take on the Tillamook and Clatsop State Forests. By eliminating logs along or above coho salmon-bearing streams that would otherwise provide shade and deliver woody debris, ODF is depriving coho salmon of essential habitat, reducing the fitness, survival, and reproduction of Oregon Coast coho salmon.

127. The timber sales in Table 1, *supra* ¶ 4, include units or parcels in the sales that are located on slopes with high risk of landslides or debris flows (identified as “LS” in Table 1)

adjacent to or upstream from coho salmon-bearing streams. These and future timber sales with these characteristics are likely to cause take of Oregon Coast coho salmon.

128. The timber sales in Table 1, *supra* ¶ 4, authorize the construction, maintenance, and use of log-haulage routes that are hydrologically connected to coho salmon-bearing streams (identified as “HCR”). Construction, maintenance, and use of log-haulage routes can trigger landslides and/or contribute chronic, direct deposition of sediment. Timber sales that authorize the construction, maintenance, and use of log-haulage routes that are hydrologically connected to streams used by coho salmon for spawning or rearing are likely to cause take of Oregon Coast coho salmon.

129. Information on ODF’s proposed timber sales is provided in draft pre-operations reports, including sale name, type of logging, acres, and proposed haul routes, as well as digital geographic data prepared by ODF that shows the boundaries of the timber sales prepared for each of the three Districts’ Annual Operations Plans.

130. Information on coho salmon occupancy of streams adjacent to or downstream from the timber sales was determined by reference to timber sale pre-operations reports through 2019. Following initiation of this litigation, ODF stopped including information about coho salmon presence in the pre-operations reports.

131. For timber sales that are now planned for 2020, coho salmon occupancy was determined by reference to geographic data from the Oregon Department of Fish and Wildlife, which identifies stream reaches with spawning or rearing coho salmon based on extensive surveys.

132. In total, based on the characteristics described above, at least 68 sales planned or sold from 2018–2020 are likely to cause take of coho salmon. *Supra* ¶ 4.

CLAIM FOR RELIEF

133. Plaintiffs re-allege paragraphs 1 through 132 and incorporate them herein by reference.

134. Defendants plan, authorize, and timber sales that involve clear-cutting, road-construction, improvement, use, and/or maintenance activities on the Tillamook and Clatsop State Forests.

135. Defendants have authorized and continue to authorize timber sales and logging operations on high-risk or high landslide hazard locations or erosion-prone slopes on the Tillamook and Clatsop State Forests, including but not limited to the timber sales in Table 1, *supra* ¶ 4.

136. Logging, especially clear-cutting, on high-risk or high landslide hazard locations or erosion-prone slopes increases the occurrence of landslides that add sediment to coho salmon-bearing streams on the Tillamook and Clatsop State Forests. Landslides significantly degrade aquatic habitat by burying gravel beds and pools and changing stream channel morphology. Where these effects occur in or upstream from streams that are occupied or used by Oregon Coast coho salmon, such as the timber sales in Table 1, they significantly disrupt and impair essential coho salmon behavioral patterns, including spawning, rearing, feeding, and sheltering. Injuries to and mortalities of Oregon Coast coho salmon result.

137. Narrow riparian buffers established by the Defendants facilitate logging activities that eliminate trees along streams that would otherwise deliver large woody debris, thereby reducing or eliminating shade canopy and complex stream habitat and directly contributing to reduced fitness, survival, and reproduction of Oregon Coast coho salmon.

138. By authorizing logging, log-hauling, road construction, and/or road improvements on high-risk or high landslide hazard locations or erosion-prone slopes on the Tillamook and Clatsop State Forests, where the effects of the ensuing landslides reach coho salmon habitat; within riparian areas; and/or on areas that are hydrologically connected to coho salmon-bearing streams, Defendants regularly plan, approve, and sell timber sales that are reasonably certain to cause take by killing, injuring, harassing, or harming Oregon Coast coho salmon.

139. Defendants' authorization of logging, log-hauling, road construction, and/or road improvements on high-risk or high landslide hazard locations ns or erosion-prone slopes on the Tillamook and Clatsop State Forests, where the effects of the ensuing landslides reach coho salmon habitat; within riparian areas; and/or on areas that are hydrologically connected to coho salmon-bearing streams or waterbodies, without any authority to engage in activities that cause incidental take of Oregon Coast coho salmon, violates the ESA's take prohibition in Section 9, 16 U.S.C. § 1538(a)(1)(B), which is made applicable to Oregon Coast coho salmon in the Special Rule. *See* 50 C.F.R. § 223.203(a) and 16 U.S.C. § 1538(a)(1)(G).

140. Unless enjoined, Defendants will continue to authorize logging, log-hauling, road construction, and/or road improvements on high-risk or high landslide hazard locations and erosion-prone slopes on the Tillamook and Clatsop State Forests, where the effects of the ensuing landslides reach coho salmon habitat; within riparian areas; and/or on areas that are hydrologically connected to coho salmon-bearing streams or waterbodies, resulting in unauthorized ongoing take in violation of 16 U.S.C. §§ 1538(a)(1)(B) & (G), 1538(g); 50 C.F.R. § 223.203(a); 73 Fed. Reg. 7816.

PRAYER FOR RELIEF

1. Declare that Defendants have violated, and continue to violate, the ESA, *see* 16 U.S.C. § 1538(a)(1)(B) (take prohibition); *id.* § 1538(a)(1)(G) (making it unlawful to violate a 4(d) regulation), and the Special Rule, *see* 50 C.F.R. § 223.203(a); 50 C.F.R. § 226.212(u); 73 Fed. Reg. 7816 (applying the ESA's take prohibition to Oregon coast coho salmon in the Special Rule), by authorizing logging, log-hauling, road construction, and/or road maintenance on high-risk or high landslide hazard locations and erosion-prone slopes where the effects of the ensuing landslides reach coho salmon habitat, and/or on areas that are hydrologically connected to coho salmon-bearing streams or waterbodies;

2. Declare that Defendants have violated, and continue to violate, the ESA, *see* 16 U.S.C. § 1538(a)(1)(B); *id.* § 1538(a)(1)(G), and the Special Rule for the Oregon Coast coho salmon ESU, *see* 50 C.F.R. § 223.203(a); 50 C.F.R. § 226.212(u); 73 Fed. Reg. 7816, by authorizing logging within riparian areas above or adjacent to coho salmon-bearing streams or waterbodies;

3. Enjoin Defendants from engaging in the activities that are violating the ESA's take prohibition until and unless Defendants obtain an HCP/ITP or otherwise cease the activities resulting in take;

4. Award Plaintiffs their reasonable attorneys' fees, expert witness fees, and litigation costs and expenses in this action pursuant to the ESA, 16 U.S.C. § 1540(g)(4); and

5. Grant such other and further relief as the Court may deem just and proper.

Respectfully submitted this 27th day of May 2019.

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